

**ICF international / Laboratory Data Consultants**

Environmental Services Assistance Team, Region 9
 1337 South 46th Street, Building 201, Richmond, CA 94804-4698
 Phone: (510) 412-2300; Fax: (510) 412-2304.

MEMORANDUM

TO: Lynda Deschambault, Remedial Project Manager
 Site Cleanup Section 1, SFD-7-1

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
 Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
 Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
 Technical Direction Form No.: 00405083

DATE: October 27, 2009

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC QB02
CERCLIS ID NO.:	CAD042245001
Case No.:	38845
SDG No.:	Y4ZA6
Laboratory:	DataChem Laboratories, Inc. (DATAC)
Analysis:	1,4-Dioxane (Semivolatile)
Samples:	20 Ground Water Samples (see Case Summary)
Collection Date:	September 1 through 3, 2009
Reviewer:	Santiago Lee, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Carol Beard, CLP PO USEPA Region 6
 Steve Remaley, CLP PO USEPA Region 9

CLP PO: ☒ Attention ☐ Action

SAMPLING ISSUES: ☒ Yes ☐ No

Data Validation Report - Tier 3

Case No.: 38845
SDG No.: Y4ZA6
Site: Omega Chem OU2
Laboratory: DataChem Laboratories, Inc. (DATAC)
Reviewer: Santiago Lee, ESAT/LDC
Date: October 27, 2009

I. CASE SUMMARY

Sample Information

Samples: Y4ZA6 through Y4ZC5
Concentration and Matrix: Low Concentration Water
Analysis: 1,4-Dioxane (Semivolatile)
SOW: SOM01.2 and Modified Analysis 1679.2
Collection Date: September 1 through 3, 2009
Sample Receipt Date: September 3 and 4, 2009
Extraction Date: September 8 and 14, 2009
Analysis Date: September 14 and 15, 2009

Field QC

Field Blanks (FB): Y4ZA9 and Y4ZC5
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided
Field Duplicates (D1): Y4ZB7 and Y4ZB8

Laboratory QC

Method Blanks & Associated Samples:
SBLK03: Y4ZA6 through Y4ZB0 and Y4ZB2 through Y4ZC5
SBLK06: Y4ZB1

Tables

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

CLP PO Action

None.

CLP PO Attention

The result for 1,4-dioxane in sample Y4ZB1 is qualified as estimated (J) due to a holding time problem (see Comment B).

Sampling Issues

1. Samples Y4ZA6 through Y4ZB6 were received by the laboratory with a cooler temperature of 9°C which exceeds the 4±2°C sample preservation criterion. Since the cooler temperature is below 20°C, no adverse effect on data quality is expected.

2. The laboratory indicated on sample log-in sheets that the cooler temperature indicator bottle was absent from four of the five coolers (refer to pages 672 through 676 in the data package).

Additional Comments

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not required. Consequently, matrix-specific accuracy and precision could not be evaluated.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services Volatile and Semivolatile Data Packages*;
- USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration, SOM01.1, May 2005;
- Modifications Updating SOM01.1 to SOM01.2, Amended April 11, 2007; and
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1.	Holding Time/Preservation	No	B
2.	GC/MS Tune/GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration Verification	Yes	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	Yes	
7.	Deuterated Monitoring Compounds	Yes	
8.	Matrix Spike/Matrix Spike Duplicate	N/A	
9.	Laboratory Control Samples/Duplicate	N/A	
10.	Internal Standards	Yes	
11.	Compound Identification	Yes	
12.	Compound Quantitation	Yes	A
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

- A. The following results, denoted with an "L" qualifier, are estimated and flagged "J" in Table 1A.

- All detected results below the contract required quantitation limits

Results below the contract required quantitation limits (CRQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

- B. The result for the following analyte is qualified as estimated due to missed technical holding time and is flagged “J” in Table 1A.

- 1,4-Dioxane in sample Y4ZB1

The extraction of sample Y4ZB1 exceeded the 7-day 40 CFR 136 (Clean Water Act) technical holding time for water samples as shown below.

<u>Sample</u>	<u>Date Collected</u>	<u>Date Extracted</u>	<u>No. of Days Exceeded</u>
Y4ZB1	09/02/09	09/14/09	5

Since the result is nondetected, a false negative may exist.

ANALYTICAL RESULTS

Page 1 of 1

Case No. : 38845

SDG No. : Y4ZA6

Table 1A

Site : OMEGA CHEMICAL OU2

Lab : ALS DataChem

Reviewer : Santiago Lee, ESAT/LDC

Date : 10/27/09

QUALIFIED DATA

Concentration in ug/L

Analysis Type :

Low Level Water Samples
for Semivolatiles

Station Location :	1			2			3			4			5			6					
Sample ID :	Y4ZA6			Y4ZA7			Y4ZA8			Y4ZA9			FB			Y4ZB0			Y4ZB1		
Collection Date :	9/1/2009			9/1/2009			9/1/2009			9/1/2009			9/2/2009			9/2/2009					
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0					
Semivolatiles	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com			
1,4-Dioxane	0.30L	J	A	2.0U			2.0U			2.0U			2.0U			2.0U	J	B			

Station Location :	7			8			9			10			11			D1		
Sample ID :	Y4ZB2			Y4ZB3			Y4ZB4			Y4ZB5			Y4ZB6			Y4ZB7		
Collection Date :	9/2/2009			9/2/2009			9/2/2009			9/2/2009			9/2/2009			9/3/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Semivolatiles	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,4-Dioxane	0.39L	J	A	0.42L	J	A	2.0U			8.1			26			0.39L	J	A

Station Location :																		
Sample ID :	Y4ZB8 D1			Y4ZB9			Y4ZC0			Y4ZC1			Y4ZC2			Y4ZC3		
Collection Date :	9/3/2009			9/3/2009			9/3/2009			9/3/2009			9/3/2009			9/3/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Semivolatiles	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,4-Dioxane	0.43L	J	A	27			1.4L	J	A	30			1.4L	J	A	0.52L	J	A

Station Location :																		
Sample ID :	Y4ZC4			Y4ZC5			FB			SBLK03			SBLK06			CRQL		
Collection Date :	9/3/2009			9/3/2009														
Dilution Factor :	1.0			1.0			1.0			1.0								
Semivolatiles	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,4-Dioxane	1.4L	J	A	2.0U			2.0U			2.0U			2.0					

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit

N/A - Not Applicable

NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank,

TB - Trip Blank, BG - Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," June 2008.

- U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.